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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/004,040	01/07/1998	LOVELL BRENT IVIE	T2701.DIV	9760

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EXAMINER

SRIVASTAVA, VIVEK

ART UNIT	PAPER NUMBER
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2611

DATE MAILED: 08/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/004,040

Applicant(s)

IVIE ET AL.

Examiner

Vivek Srivastava

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25-56 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 25-56 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 11. 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 36 – 41, 44, 48, 51 and 53 – 56 are rejected under 35 U.S.C. 102(b) as being anticipated by Gutenson et al (5,043,531).

Considering claim 36, Gutenson discloses conveying telephone and television information between rooms (i.e. a first location and second location, see col 3 lines 8-15 and fig 2) via a communications cable comprising a coaxial cable, and optical fiber cable and twisted pair cable (see col 4 lines 51-62). Gutenson also discloses the optical fiber, twisted pair and coaxial cable are bundled together such that the optical fiber cable, the coaxial cable and twisted pair cable form an elongated set of three cables which are maintained in parallel and which be bent during installation and use (see fig 6a, 6b, 6c and 6d and note in fig 2 that the cables are bent as they are distributed throughout the home).

Considering claim 37, Gutenson discloses the claimed wherein the coaxial cable extends from the first location to the second location (see fig 2).

Considering claim 38, Gutenson inherently discloses the claimed coaxial cable connector connected to an end of the coaxial cable (see col 6 lines 43-50, connector would be required to 'connect' the end of the coaxial cable to the tap module).

Considering claim 39, Gutenson inherently discloses the claimed twisted pair connector connected to an end of the twisted pair cable (see col 6 lines 43-50 and col 3 lines 28-35, connector would be required to 'connect' the end of the twisted pair to the telephone tap).

Considering claim 40, Gutenson inherently discloses the claimed fiber optic connector connected to an end of the optical fiber cable (see col 4 lines 51-62, connector would be required to 'connect' the end of the optical fiber cable to a tap, module or receiving device).

Considering claim 41, Gutenson discloses a data communication system within a home (col 3 lines 4-17) comprising a first room, a second room and a third room (see col 3 lines 3-7 and fig 2), a central location (met by location comprising splitter 80 in fig 2), a service center 32 for entering data into the home (see col 3 lines 8 – 17) which conveys information to the central location. Gutenson further discloses a coaxial gateway 56 which amplifies the signal transmitted to the splitter 80 (see col 3 lines 36 – 40), the amplifier in the coaxial gateway meets the claimed "first electronic circuit" limitation. Gutenson discloses a first bus (met by cable 52D in fig 2) which extends from the central location to a first room; Note the bus or cable comprises a coaxial cable, a plurality of twisted wires and a fiber optic cable (see col 4 lines 58-61). Gutenson discloses a second bus (met by cable 52E in fig 2) which extends from central location

to a second room; Note the bus or cable comprises a coaxial cable, a plurality of twisted wires and a fiber optic cable (see col 4 lines 58-61). Gutenson discloses a third bus (met by cable 52F in fig 2) which extends from central location to a third room; Note the bus or cable comprises a coaxial cable, a plurality of twisted wires and a fiber optic cable (see col 4 lines 58-61). Further, Gutenson discloses splitter 80 within central location (dissemination means is within splitter 80 for splitting signals, see col 5 lines 33-44) for selectively conveying any electronic information present on the first electronic circuit to and of the first, second or third busses.

Considering claim 44, Gutenson discloses splitter 80 (which meets the claimed dissemination means as discussed above) comprising coaxial cables 54 (see col 5 lines 44 – 50). Gutenson also inherently discloses connectors attached to each of the length of cable to couple or connect the coaxial cable in splitter 80 with the coaxial cable in service center 32 or to various taps and outlets 82 within the home (see fig 2).

Considering claim 48, claim 48 recites the same limitations as recited in claim 36 and is rejected by that discussed above. Claim 48 further recites “set of information carrying media being capable of carrying telephone signals, television signals, radio frequency signals and light signals from first location to second location” which is met by Gutenson (see col 3 lines 13-17; note: roof antennas receive RF signals and optical signals are carried on the optical fiber – see col 4 lines 59-61).

Considering claim 51, Gutenson discloses the claimed wherein at least one coaxial cable comprises two coaxial cables (see col 4 lines 59-61).

Considering claims 53, Gutenson discloses the claimed wherein the set of information carrying media has a bandwidth, said bandwidth being greater than a bandwidth of coaxial cable and bandwidth of a plurality of twisted pair cables (see col 4 lines 3-14, col 4 lines 51 – 65, optical cable has higher bandwidth than coax and twisted pair).

Regarding claims 54, 55 and 56 see claims 38, 39 and 40 above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 25 – 29, 31 – 35, 42, 43, 49, 50 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gutenson et al (5,043,531).

Considering claim 25, Gutenson discloses a system for distributing television signals and telephone signals in a first room, second room and third room within a home (see fig 2 and col 3 lines 7-17) noting that the television and telephone signals meets the claimed “electronic information signals” limitation. Gutenson further discloses a communications cable comprising twisted wire pairs, coaxial cables and optical fiber (see col 4 lines 59-61). Gutenson also inherently discloses a first input means for receiving a first information signal (first input means met by inputting telephone or

Art Unit: 2611

television signals into the system, see col 3 lines 7-17). Gutenson also inherently discloses an interconnection means for communicating the electronic information signals on the first input means to any of the first, second or third rooms (since rooms are interconnected for distributing information, Gutenson discloses the claimed limitation). Gutenson fails to disclose the claimed support means for holding a plurality of connectors, a first set of connectors connected to the support means, a second set of connectors connected to the support means and a third set of connectors connected to the support means, wherein each set of connectors include a coaxial cable connector, an optical fiber connector and a twisted pair connector for conveying information to the first, second or third rooms.

It would have been obvious providing connectors and support for the cables or wiring in Gutenson would provide connection and support required for distributing cables within a home. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gutenson to include the claimed connectors and support for the cables in Gutenson to enable secure distribution of cables and data within a home.

Considering claim 26, Gutenson discloses a service center 32 which is depicted as having a front panel and housing and which is depicted as being supported to the wall of the home for conveying signals to splitter 80 for distribution to rooms within the home (see fig 2).

Considering claim 27, Gutenson discloses a communications cable including a coaxial cable for distributing and receiving a first signal (see col 4 lines 51-62).

Considering claim 28, Gutenson discloses a communications cable including a optical fiber cable for distributing and receiving a third signal (see col 4 lines 51-62).

Considering claim 29, Gutenson discloses a communications cable including a twisted pair cable for distributing and receiving a second signal (see col 4 lines 51-62).

Regarding claim 31, Gutenson fails to disclose wherein the twisted pair connector comprises a CAT5 connector. It would have been obvious to one skilled in the art to use a CAT5 connector in Gutenson since a CAT5 connector is a well known standard which would result in a connector which has been tested and known to be reliable.

Regarding claim 32, Gutenson fails to disclose the claimed wherein each of the first, second, third and fourth set of connectors each comprise two coaxial cable connectors, two optical fiber connectors and two twisted pair connectors.

Regarding claim 32, as discussed in claim 25, it would have been obvious to include the claimed first, second, third and fourth set of connectors. Gutenson further discloses the first, second, third and fourth buses comprise two coaxial cables, four twisted pair cables and one optical fiber (see fig 6A and 6B). It would have been obvious modifying Gutenson to include two twisted pair cables in lieu of four resulting in two twisted pair connectors would have provided a smaller communication cable resulting in less space consumed and less cost and it would have been obvious including another optical fiber thus having two total resulting in two optical fiber connectors would have enabled another communication medium for transmitting data signals. Therefore, it would have been obvious to one having ordinary skill in the art at

Art Unit: 2611

the time the invention was made to modify Gutenson to include the claimed connectors associated with coaxial cable, optical fiber and twisted pair cable to reduce space and cost and to provide another communication medium thus providing a greater amount of communication within a dwelling.

Considering claim 33, Gutenson inherently discloses the claimed "wherein the first interconnection means comprises a length of coaxial cable including a coaxial cable connector positioned at each end thereof" since a connector must be included to connect the cable on each end to tap and splitter (see col 6 lines 43-50, connector would be required to 'connect' the end of the coaxial cable to the tap module and to splitter 80 in fig 2).

Considering claim 34, Gutenson inherently discloses the claimed "wherein the second interconnection means comprises a length of optical fiber including an optical fiber connector positioned at each end thereof" (see col 4 lines 51-62, connector would be required to 'connect' the end of the optical fiber cable to a tap, module or receiving device and to splitter 80 in fig. 2).

Considering claim 35, Gutenson inherently discloses the claimed "wherein the third interconnection means comprises a length of twisted pair cable including a twisted pair connector positioned at each end thereof" (see col 6 lines 43-50 and col 3 lines 28-35, connector would be required to 'connect' the end of the twisted pair to the telephone tap to splitter 80 in fig. 2).

Regarding claim 42, Gutenson discloses a telephone gateway 48 comprising twisted pair conductors 50 which transmits signals to twisted pair conductors 50 and RS

Art Unit: 2611

232 cable 49 (fig 3 and col 3 lines 29 – 35). It is noted that Gutenson discloses the claimed “third electronic information circuit” since input signals 8 are separated and directed to splitter 80 via twisted pair conductors 50 or to the control data communication system 60 via RS 232 cable 49 (see fig 3). Further, Gutenson discloses the claimed first electronic circuit as discussed above in claim 41 comprising coaxial cable (col 3 lines 36 – 40). Although Gutenson discloses optical fiber is also distributed within the home, Gutenson fails to disclose the claimed second electronic information circuit entering the dwelling and conveying electronic information to the central location and the second electronic information circuit comprising optical fiber. It would have been obvious to modify Gutenson to include the claimed second electronic circuit comprising a optical fiber to enable optical fiber signals to be received from the outside and to be selected, switched and distributed to various locations within and home. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gutenson to include the claimed limitation to enable higher bandwidth better quality optical fiber signals to be received and to be selected, switched and distributed to desired locations within a home.

Regarding claim 43, Gutenson discloses the first, second, third and fourth buses comprise two coaxial cables, four twisted pair cables and one optical fiber (see fig 6A and 6B). It would have been obvious modifying Gutenson to include two twisted pair cables in lieu of four would have provided a smaller communication cable resulting in less space consumed and less cost and it would have been obvious including another optical fiber thus having two total in the first, second, third and fourth buses would have

enabled another communication medium for transmitting data signals. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gutenson to include two twisted pairs in lieu of four to reduce space and cost and it would have been obvious including two optical fibers in lieu of just one to provide another communication medium thus providing a greater amount of communication within a dwelling.

Regarding claim 49, Gutenson discloses four twisted pair cables. It would have been obvious modifying Gutenson to include two twisted pair cables in lieu of four would have provided a smaller communication cable resulting in less space consumed and less cost. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gutenson to include two twisted pairs in lieu of four to reduce space and cost.

Regarding claim 50, Gutenson discloses one optical fiber. It would have been obvious including another optical fiber thus having two total would have enabled another communication medium for transmitting data signals. Therefore, it would have been obvious to modify Gutenson to include two optical fibers in lieu of just one to provide another communication medium thus providing a greater amount of communication within a dwelling.

Regarding claim 52, Gutenson discloses the first, second, third and fourth buses comprise two coaxial cables, four twisted pair cables and one optical fiber (see fig 6A and 6B). It would have been obvious modifying Gutenson to include two twisted pair cables in lieu of four in the set of information carrying media would have provided a

smaller communication cable resulting in less space consumed and less cost and it would have been obvious including another optical fiber thus having two total in the set of information carrying media would have enabled another communication medium for transmitting data signals. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gutenson to include two twisted pairs in lieu of four to reduce space and cost and it would have been obvious including two optical fibers in lieu of just one to provide another communication medium thus providing a greater amount of communication within a dwelling.

Claims 30 rejected under 35 U.S.C. 103(a) as being unpatentable over Gutenson in view of Applicant's disclosure.

Considering claim 30, Gutenson discloses a coaxial cable connector but fails to disclose the claimed coaxial cable connector comprises an RG6 connector. The Applicant's disclosure teaches that the RG6 connector is known industry standard (see page 21 lines 9 – 11). It would have been obvious to one skilled in the art to modify Gutenson in view of the Applicant's disclosure to use the known RG6 connector to ensure use of a reliable connector which has been proven effective.

Claims 45 – 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gutenson in view of Johnston (6,017,238).

Considering claim 45, Gutenson discloses a central service center 32 which (see col 3 lines 10-15 and fig 3) comprises a plurality of groups of connectors (see fig

3), wherein connectors inherently couple coaxial cable 54 to coaxial gateway 56 and couple twisted wire pairs 50 to telephone gateway 48 (see fig 3). It is noted that the connectors connecting the coaxial cable and twisted wire pairs to the respective gateways provide distribution of signals to specific outlets 82 or 'locations' throughout the home in figure 2.

Gutenson fails to disclose the claimed patch cord. Johnston teaches a patch cord on a cross-connect panel provides a convenient centralized location for networking the communications and data processing systems within a building and for interconnecting the building systems with an outside telecommunication network (see col 1 lines 10-18). It would have been obvious to one skilled in the art to modify Gutenson to include the claimed patch cord including a connector at a first end which is received by one of the group connectors, the patch cord second end connected to a service signal wherein the service signal can be switched from one location in the structure to another by disconnecting the patch cord from a connector in a first group and connecting it to another connector in a second group to provide a convenient centralized location for networking the communications and data processing systems.

Considering claim 46, Gutenson discloses home structure which meets the claimed residence limitation (see Abstract).

Considering claim 47, Gutenson discloses the claimed telephone signals (see col 3 lines 29 – 30).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sass et al (5,418,878) – multi-mode communications cable

Brown (6,282,405) – hybrid telecommunications distribution network

Arroyo et al (5,745,627) – composite cable

Flickinger et al (5,901,340) – wideband signal distribution system

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872 - 9314, (for formal communications intended for entry)

Or:

(703) 308- 5399 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vivek Srivastava whose telephone number is (703) 305 - 4038.

The examiner can normally be reached on Monday - Thursday from 8:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

Art Unit: 2611

supervisor, Andy Faile, can be reached at (703) 305 - 4380.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703) 305 - 3900.

VS 8/7/03



VIVEK SRIVASTAVA
PRIMARY EXAMINER